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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/402,674	10/08/1999	JARI KOISTINEN	365-428PCT	6270

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EXAMINER
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EINSMANN, MARGARET V

ART UNIT	PAPER NUMBER
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1751

18

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/402,674	Applicant(s) KOISTINEN ET AL.	
	Examiner Margaret Einsmann	Art Unit 1751	

-- **Th MAILING DATE of this communication appears on th cover she t with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 17 and 19-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 17, 19-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other:  |

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### **DETAILED ACTION**

Applicant's amendment filed May 19, 2003 has been entered and applicant's remarks considered. The declaration under 1.132 filed 7/21/03 has been carefully considered. The pending claims are claims 17, 19-26.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17, 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahara et al. Nakahara et al. disclose compositions comprising lubricating oils synthesized from esters combined with various polyols and linear and branched mono- and di- carboxylic acids, said oils mixed with fluorocarbon refrigerants. The glycols and carboxylic acids used are listed in columns 3 and 4 and include nearly all claimed. See also col 1 line 46 to col 2 line 48. Regarding the claims 17, 19-26, esters of all of the claimed polyols are disclosed in col 4, the individual mono- and di- carboxylic acids are

listed in columns 3 and 4. Patentee claims and even exemplifies the formation of mixed esters. See example 10 where HPHP (hydroxypivalic acid neopentyl glycol monoester) is combined with neopentyl glycol, succinic acid and 2-ethylhexanoic acid, which is the in situ process as claimed. Note that the HPHP is mixed in a proportion such that it is at least 50% of the polyol residue of the ester mixture as claimed. The two acids, a dibasic and a monobasic, both fall within the scope of those instantly claimed. The example differs from the instant claims because the glycol used in this example is not one of the glycols instantly claimed.

It would have been obvious to the skilled artisan to substitute one of the claimed polyols for neopentyl glycol in the process of Nakahara's claim 10 with the expectation of equivalent results because patentee teaches the equivalence of all of the claimed polyols, (trimethylol propane, trimethylolethane, pentaerythritol and 2,2,4-trimethylpentadiol) to the neopentyl glycol used in example 10. See col 4 lines 26 et seq. Note particularly lines 35-36 where both neopentyl glycol and the claimed trimethylol propane are preferred.

### ***Response to arguments***

Applicant argued the rejection of the claims as being obvious over Nakahara et al. by stating in the response of 9/3/02:

1. There are different methods of forming HPHP and that applicant uses a pure commercial product while the product of patentee's example 1 process needs post treatment and purification. Applicant states that the preparation of HPHP from HP acid and neopentyl glycol yields an inferior product. In response to this argument, the HPHP of example 10 uses the product of example 1, which is formed from

hydroxypivaldehyde. See example 1. Patentee states in example that he is using hydroxypivalic acid neopentylglycol monoester. That is the same chemical as the claimed HPHP.

2. Applicant next referred to examples 7 and 9 in Table 4. Those examples cannot be used to argue limitations in the instant claims as they are directed to compositions which are not claimed. Applicant argues that the solubility is unpredictable. This office agrees with that statement. That is even more so when esters from different polyols and acids are used. How can Table 4 be used to show that the claimed compositions are unobvious if the Table discloses compositions which are not within the scope of the compositions claimed in claim 17, the only independent claim?

Applicant's remarks filed 5/19/03 and the 1.132 declaration of Doctor Salme Koskimies filed 7/21/03 have been carefully considered but are not persuasive to moot the rejection of claims 17, 9-26 over Nakahara et al. as set forth in the previous office actions. Applicant states that it would not have been obvious to replace the NPG in example 10 of Nakahara with other esters or to use more than 50% HPHP as the polyol in the esters as is claimed. Applicant and Declarant refer to Table 4 in the specification which shows that as the proportion of HPHP is increased the solubility of the oil in fluorinated refrigerants is increased. Declarant points to esters comprising HPHP and BEPD which are set forth in the table and explains that as the proportion of HPHP in the HPHP/BEPD ester mixture is increased the solubility in fluorinated refrigerants is increased. Applicant is referred to claim 17, the independent claim now pending. Note that the mixture in the table is not claimed in the instant application. Accordingly that table cannot be used as evidence to support the pending claims. The claim is limited to esters formed from at least 50 mole % HPHP mixed with trimethylol propane, trimethylol

ethane, pentaerythritol or 2,2,4-trimethylpentadiol. Regarding the discussion of the superiority of commercial HPHP over the HPHP used in Nakahara, the claims are inclusive of both types of HPHP.

***Conclusion***


**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret Einsmann whose telephone number is (703) 308-3826. The examiner can normally be reached on Monday to Thursday and alternate Fridays from 7:00 A.M. to 4:30 P.M. The fax phone number for this Technology Center is (703) 305-3599

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

A handwritten signature in cursive script that reads "Margaret Einsmann".

MARGARET EINSMANN

PRIMARY EXAMINER 1751

8/7/03